

REMARKS

Claims 1-50 currently remain in the application. Claims 1, 12, 19, 26, 37 and 44 have been amended; no new matter has been added. Applicants respectfully request reconsideration in view of the preceding amendments and following remarks.

Applicants thank the Examiner for the courtesy extended during the telephonic interview with Applicants' representative on March 8, 2006. The rejections were discussed during this interview.

Rejection under 35 U.S.C. § 112

Claims 1, 19, 26, and 44 have been amended to correct for any indefiniteness; withdrawal of the rejection is respectfully requested.

In the Claims

Claims 12 and 37 have been amended for clarification and which node performs certain functions recited in the claims.

Rejection under 35 U.S.C. § 102

Claims 1-9, 12-34 and 37-50 were rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,721,899 to Narvaez-Guarnieri et al. (referred to herein as 'Narvaez-Guarnieri')

Claims 1-9, 12-34 and 37-50 were rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,820,134 to Zinin et al. (referred to herein as 'Zinin')

The present invention provides methods and apparatus for resynchronizing link state information in a network node, e.g. a node that fails and needs restarting.

Narvaez-Guarnieri propagates packets in a path that avoids a known and broken link.

Zinin modifies asynchronous flooding algorithms.

Independent claim 1 recites a three step handshake to resynchronize link state information: "transmitting a first message from the network node to a first neighboring node",

"receiving a second message from the first neighboring node" and "receiving one or more link state packets from the first neighboring node".

Narvaez-Guarnieri and Zinin are both silent on this three-step handshake and do not anticipate the claims. For Narvaez-Guarnieri, the Office Action on page 3 singly points to col 4 lines 16-44 of Narvaez-Guarnieri to teach all limitations in the independent claims. However, this section describes how Narvaez-Guarnieri performs path reconfiguration to avoid a failed link and avoid looped routing in a network after a link failure by informing propagating routers in the system of the link failure. The propagating message eliminates backwards communications to the originating router. Thus, there are no second and third messages back to the network node as recited in elements two and three of independent claim 1. For Zinin, the acknowledgement message is a stop message (see col 8 lines 14-25) that prevents further communication. The second element of claim 1 includes an acknowledgement. According to the teachings of Zinin then, there can be no third message after the acknowledgement (element three in the claims). Therefore, Narvaez-Guarnieri and Zinin, either alone or in combination, fail to teach all the limitations in the claims.

The first message, second message and link state packets are also characterized by dummy link state information, acknowledgement of the first message, and link state information, respectively. Narvaez-Guarnieri and Zinin are further silent on these features for the first message, second message and link state packets, respectively. For at least these reasons, claim 1 is allowable over the art of record.

Independent claim 12 includes a method for a network node to request link state information from neighboring nodes, and includes: "maintaining information identifying one or more neighboring nodes in persistent storage of the network node; restarting the routing control protocol of the network node, wherein restarting the routing control protocol clears a link state database; transmitting heartbeat messages from the network node to one or more neighboring nodes"; "transmitting a first link state information request message from the network node to a first neighboring node" and "transmitting a second link state information request message from the network node to a second neighboring node." Narvaez-Guarnieri and Zinin do not teach or suggest this set of limitations. Again, Narvaez-Guarnieri is not concerned with restarting a node, and propagates packets in a path that avoids a known and broken link. In addition, Zinin modifies flooding algorithms, which does not teach the neighbor-based link state information request protocol of independent claim 12.

Independent claims 19, 26, 37 and 44 include limitations that are similar to limitations in claims 1 and 12. Correspondingly, Narvaez-Guarnieri and Zinin fail to disclose all limitations in the independent claims. Therefore, Applicants respectfully submit that the art of record does not anticipate or suggest independent claims 1, 12, 19, 26, 37 and 44.

For at least these reasons, the independent claims are allowable over Narvaez-Guarnieri and Zinin.

Claims 2-9, 13-18, 20-25, 27-34, 38-43 and 45-50 each depend either directly or indirectly from independent claims 1, 12, 20, 21, 24, 27 and 44 and are patentable over the art of record for at least the reasons set forth above with respect to the independent claims. Further, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record.

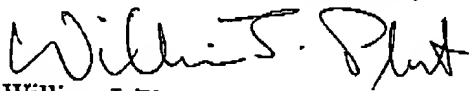
For example, dependent claim 2 recites "wherein the network node ignores the second message". The art of record does not teach or suggest this limitation.

Withdrawal of the rejections of under 35 U.S.C. § 102 is therefore respectfully requested.

Applicants gratefully acknowledge indication of allowability of claims 10-11 and 35-36 if rewritten in independent form, but believe all claims allowable for the reasons indicated above.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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